

united these two parts of the world. The Atlantic islands had already risen towards the south coasts of this continent at the diluvian period. That this country was at the bottom of the sea during the miocene epoch, is shown by the fossil shells of Porto Santo and St. Vincent in Madeira and those of the Azores; but that it had emerged at the diluvian period is proved by the terrestrial mollusca of Caniçal, and the fossil plants of St. Jorge in Madeira\*.

The islands formed at this epoch would have received their vegetation from the Atlantis in the diluvian period, and consequently at an epoch when this continent had entered upon a new phase of development. If we suppose, that then, by a subsequent depression of the soil, the connexion with America was destroyed, and subsequently that which existed with Europe, we shall obtain the elements for the explanation of the existing flora of these islands. We there find the remains of the flora of the ancient Atlantis, and in consequence many types of the Tertiary flora are retained there whilst they have disappeared in Europe. These remains, with a certain number of other species, form the peculiar plants of these isles, corresponding in part with the American species because they have issued from the same centre of formation. But it is with Europe that these islands have the most species in common, probably because their connexion with this continent lasted longer.

At the diluvian period the flora of central Europe was displaced by great changes of climate (extension of glaciers, &c.); and as by the depression of the Atlantis the connexion with America was destroyed, the new European vegetation could not extend on that side, but only towards the east. It is thus that the characters of the new vegetation would be explained, particularly that of the lower countries, whilst the Alps and the north have undergone less change. This also is the reason of the great analogies which occur between the north of Europe, Asia, and America. I arrive therefore at the same conclusion with yourself as regards these latter countries, namely that the alpine vegetation is certainly the most ancient in our country, and that subsequently when the climate became warmer, after the glacial epoch, it rose from the low countries to the mountains and Alps.—*Bibliothèque Univ. de Genève*, April 1856, p. 327.

*Note on Clausilia plicatula and C. Mortilleti.*

By J. GWYN JEFFREYS, Esq.

Mr. Benson, in the last Number of the 'Annals' (p. 75), states that I omitted *Clausilia plicatula* in my "Notes on the Swiss Mollusca," as well as two other so-called species of *Clausilia*; all of which he had found in Switzerland. My reason for omitting *C. plicatula* was explained in the preface to my "Notes," in which I said I was induced to think that a notice of "some *hitherto unrecorded* localities" which occurred to me might be interesting, and that I adopted Charpentier's Catalogue as my text-book. By referring to that catalogue it will be seen that Charpentier mentions *C. plicatula*

\* See Heer, "Ueber die fossilen Pflanzen von San Jorge in Madeira," Zurich, 1855.

as "fort commune dans toute la Suisse occidentale." I found it at Belmont, les Rochers Nayé, Lausanne, Devens, Blonay, and Montreux. For the same reason I omitted such common species as *Succinea amphibia*, *Helix arbustorum* and *nemoralis*, *Pupa avena*, *Clausilia parvula*, *Cyclostoma elegans*, and *Ancylus fluviatilis*.

*C. plicatula* is undoubtedly distinct from *C. Rolphii*; but whether *C. Mortilleti* is not a variety of *C. Rolphii* is another question. Judging from a comparison of specimens of *C. Mortilleti* kindly sent me by Mr. Prentice, with specimens of *C. Rolphii*, described and figured by the authors of the 'British Mollusca,' I am inclined to think they ought to be united. Mr. Hanley is of the same opinion. The differences pointed out by Mr. Benson are equally observable in varieties of *C. nigricans* and *C. bidens*. However, Mr. Benson has had great experience in the discrimination of species from varieties; and (as I remarked on a former occasion) naturalists may fairly differ on this point.—J. GWYN JEFFREYS.

I Montagu Square, 11th July 1856.

#### LERNÆA BRANCHIALIS.

To the Editors of the *Annals of Natural History*.

Falmouth, June 28, 1856.

GENTLEMEN,—The "*Lernæa branchialis*," Linn., was procured this morning by Miss Vigurs from the gills of the *Gadus Æglefinus*. It measured one inch and seven-eighths in length. The head was ornamented with two transparent horns, about one-eighth of an inch long, slightly curved and sharp at the points. Neck long; body inflated, bent in the form of the letter S; filaments contracted, annulated, very much contorted, transparent. Colour of head, neck and body chocolate-brown.

I am, Gentlemen, yours truly,

W. P. COCKS.

On two new species of Birds from Santa Fé di Bogota.

By PHILIP LUTLEY SCLATER, M.A., F.Z.S.

HETEROCNEMIS MARGINATA, Sclater.

*H. supra cinnamomeo-brunnea, pennis strictissime nigro marginatis: alis caudaque intus nigricantibus, externe brunnescentibus: subtus alba, gutturis et pectoris totius plumis strictè brunneo marginatis, quasi squamatis; his marginibus versus ventrem gradatim latioribus: ventre crissoque cinnamomeo-brunneis, nigro transversim vittatis: rostro nigro, mandibula inferiore basi alba; pedibus pallide brunneis.*

Long. tota 3·0; alæ 2·2; caudæ 1·2; rostri a fronte ·5.

Mr. Strickland's name *Holocnemis*, proposed in 1844 for the *H. navia* (figured in Cont. to Orn. 1849, pl. 18), has been previously applied to a genus of Coleoptera by Schilling, and I there-